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1501 K STREET, N.W.
WASHINGTON, D.C. 20005
TELEPHONE 202 736 8000
FACSIMILE 202 736 8711
www.sidley.com
FOUNDED 1866

BEIJING
GENEVA
HONG KONG
LONDON
SHANGHAI
SINGAPORE
TOKYO

WRITER'S DIRECT NUMBER
(202) 736-8224

WRITER'S E-MAIL ADDRESS
cbeckner@sidley.com

December 29, 2003

Ex Parte

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: Ex Parte Presentation, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket Nos. 01-338, 96-98, 98-147.

Dear Ms. Dortch:

On April 5, 2002, AT&T Corp. ("AT&T") submitted in the above-captioned proceeding the Declaration of Ellyce Brenner. At that time, AT&T designated certain portions of Ms. Brenner's declaration as containing confidential and proprietary information under the terms of the protective order the Commission entered in this proceeding. Accordingly, as required by the Commission's protective order, AT&T filed both a confidential of her declaration as well as a public version in which the confidential information was redacted.

By way of this letter, AT&T hereby waives confidential treatment of information that it has previously designated as proprietary in the Brenner Declaration, and that information may be disclosed without limitation. To ensure that all parties to this proceeding have full access to information previously designated as confidential, I have attached to this letter a revised public version of Ms. Brenner's declaration that includes the material that had been redacted in the prior public version of her declaration.

Marlene H. Dortch, Secretary
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Please contact undersigned if you have any questions on this matter.

Very truly yours,

A handwritten signature in black ink, appearing to read "C. Frederick Beckner, III". The signature is fluid and cursive, with a large, stylized "C" at the beginning and a long, sweeping flourish at the end.

C. Frederick Beckner, III
Counsel for AT&T Corp.

Encl.

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In the Matter of)	
)	CC Docket No. 01-338,
Review of the Section 251)	No. 96-98 &
Unbundling)	No. 98-147
Obligations of Incumbent Local)	
Exchange Carriers)	
)	

elements (“UNEs”), including unbundled switching as part of a “platform” of unbundled elements (*i.e.*, “UNE-P”), is critical to AT&T’s success in serving business locations that have less significant demand for communications services, *i.e.*, those served using voice-grade loops rather than high capacity digital facilities. Unfortunately, AT&T’s attempts to serve these “low volume” business locations by its preferred, facilities-based method of providing all but the “last mile” connectivity on its own network has proven completely unworkable. Indeed, for over two years – and after making substantial investments in its own facilities and switches – AT&T attempted to enter approximately twenty business markets using this precise entry mechanism. However, existing conditions, including the lack of a seamless mechanism to migrate customers to AT&T’s network, have left AT&T with no effective way to access customers’ voice-grade loops and connect them to AT&T’s switches in a way that still meets customers’ expectations for timely service without service outages.

3. AT&T’s market experience led to the inevitable conclusion that a switch-based entry plan could not succeed for low volume business locations. AT&T was able to win only a competitively insignificant amount of such business locations, and the problems associated with this entry plan caused significant delays in provisioning service, prolonged service outages, and massive cancellations of orders by customers, both before and after migration. Because of these dismal results, AT&T has completely revamped the method it uses to provision its “All in One” (AIO) service, which are targeted to these low volume business locations. Rather than relying on its initial entry strategy of combining an unbundled loop with AT&T’s own switching, AT&T has found that the only feasible way to acquire these customers is to use UNE-P, and then plan in the long term to migrate them to AT&T’s switches when that is both economically and technically feasible. In just a few months, this strategy has been far more effective than its initial

one: the number of low volume business locations AT&T has acquired – and equally important retained – via UNE-P is comparable to the number it acquired in over two years of switch-based entry.

4. AT&T's market experience demonstrates precisely why competitive local exchange carriers ("CLECs") generally are impaired without the availability of unbundled switching and UNE-P for the provision of service to business locations with low demand. The impairments result from the fact that, because of the ILECs' monopoly legacy, the voice-grade loops that serve low volume business locations are all physically connected, or "hard-wired" to the ILECs' facilities and switches. To offer a switch-based service to these customers, competing carriers must have an easy, inexpensive, and reliable method to access and migrate these loops to their own switches. If that does not occur, then the CLECs will be unable to utilize their switches at the efficient levels necessary to generate the economies of scale that drive down switching costs. Indeed, that is precisely what happened to AT&T: in spite of the deployment of dozens of switches and considerable investment in backbone network facilities, the lack of a seamless migration process has proven to be a major impediment to use of those facilities, leaving them drastically underutilized.

5. The existing processes to access and migrate loops of low volume business customers are insufficient as an economic and a technical matter – and, even more important, they are unacceptable to customers. First, in order to access these customers' loops without UNE-P, CLECs must establish a collocation in every ILEC central office, a process that is very costly and time-intensive. Indeed, it is simply impossible to establish collocation in all 14,000 ILEC central offices. Moreover, for voice-grade loops, competing carriers cannot rely on enhanced extended links ("EELs") to reduce the need for collocation, because EELs are only

effective to combine high capacity loops with transport. In contrast, voice-grade loops can only be accessed through the use of the “coordinated hot cut” process, along with the use of ILEC multiplexing onto higher capacity transport. Thus, even though EELs may in theory reduce the need for collocation, they do nothing to resolve the problems associated with accessing loops, and in particular do not address the flaws in the hot cut process described below.

6. Competing carriers are also impaired because they face additional costs to deliver calls from their prospective customers to their switches. Notably, these are costs that ILECs generally do not incur, because their customers’ loops always terminate at the switch in the central office that serves the customer. In contrast, competitive carriers cannot use their own switches to provide service unless they can arrange to “backhaul” their customers’ traffic from the serving central office to their own switching location. This problem is exacerbated because the costs CLECs incur for the facilities to deliver these calls is often inflated. Even though the ILECs are required to offer these facilities as UNEs priced at cost-based rates, in fact CLECs must often order them as special access services, which are priced above-cost and which further raises CLECs’ costs

7. In addition to these economic impediments, as a technical matter, CLECs have substantial difficulties in accessing the loops that serve business locations. The coordinated hot cut process that is used to migrate these loops to a CLEC network is inherently ill-suited to competition in the mass market of low volume business users. AT&T’s experience demonstrates, and other CLECs have confirmed, that coordinated hot cuts cause significant delays in provisioning service and can result in prolonged service outages. The process requires a high degree of coordination among carriers and entails manual work to change the hard-wired connection between a customer’s loop and its connection to the ILEC switch. By their very

nature, hot cuts could never be performed in the volumes needed, and at the performance levels customers require, to support true competition in local business markets.¹

8. Further, CLECs are effectively foreclosed from providing service to a growing portion of these business customers – specifically, those business customer locations served by copper loops that are connected to digital loop carriers (“DLC”). Under the DLC architecture that the ILECs employ, competing carriers cannot access a customer’s individual loop at the central office, and the workarounds that have been developed are neither cost-effective nor scalable. Indeed, the problems with accessing DLC loops contributed to the failure of AT&T’s initial plan to use its own switches to serve business customers with voice-grade loops.

9. For all of these reasons, CLECs require access to UNE-P to serve *any* business location that CLECs would serve via a voice-grade loop. In contrast to an entry strategy that relies on hot cuts to acquire such customers, UNE-P allows these customers – even those served by DLC – to switch to a new local carrier quickly and easily, without significant delays or service outages. Subsequently, where it is economically and technically reasonable, and where CLECs have been able to deploy a switch, CLECs can cut-over customers to their own switches on a “project-managed” basis, which avoids the problems associated with one-at-a-time coordinated hot cuts. Thus, the availability of UNE-P in no way deters a CLEC from seeking to provide facilities-based service. To the contrary, UNE-P supports investment in facilities, as AT&T’s own entry plans demonstrate.

10. Accordingly, the Commission should not only continue to require local switching to be unbundled, it should make clear that CLECs can use UNE-P whenever it serves a business

¹ See Declaration of John Szczepanski on Behalf of AT&T Corp., attached to Comments of AT&T Corp., *Performance Measures and Standards for Unbundled Network Elements and Interconnection*, CC Docket No. 01-318 (filed Jan. 22, 2002) (“Szczepanski Performance Measures Decl.”).

location with voice-grade loops. Even though AT&T has just begun using UNE-P to serve business customers, it has proven to be a very effective way to provide those customers with a real competitive alternative. Where UNE-P is widely available, it has the potential to circumvent the capacity and service quality limitations inherent in the coordinated hot cut process, and to allow CLECs to quickly build the larger customer base that is needed for CLECs to utilize their networks in an efficient manner. If, on the other hand, ILECs are permitted to continue to apply the “switching carve-out” defined in the *UNE Remand Order*, AT&T and other CLECs are effectively precluded from providing local service to all but the largest locations of large business customers – *i.e.*, those that obtain service over high capacity loops. As a result, even when competitors have deployed switches that can be used to provide voice services, those switches often cannot be used to serve sufficient numbers of customers to be efficient, or to warrant additional investments in facilities.

III. AT&T’S MARKET EXPERIENCE IN PROVIDING SERVICE TO BUSINESS CUSTOMERS

11. In this Part, I describe AT&T’s actual experience in developing and implementing local market entry plans for business customers. In devising these plans, AT&T has carefully considered these customers’ needs. In particular, business customers are highly sensitive to service quality. They depend on their telecommunications services to achieve their business goals and, as a consequence, require their service to be available at all times, with virtually no service interruptions – particularly during regular business hours. Business customers also demand advanced features and functionality, while still demanding competitive prices.

A. **To Reduce Costs and Differentiate Its Service Offerings, AT&T Prefers To Use Its Own Switches To Serve All Business Customers.**

12. When serving a business customer of any size, AT&T *always* prefers to use its own facilities whenever it is feasible. In particular, AT&T wants to use its own switches to provide service to such customers, for several reasons:

- First, to the extent AT&T can serve its customers on its own network, it is in the best position to control the costs, quality and services that create the overall customer experience.
- Second, AT&T can best fulfill business customers' demand for advanced features and pricing plans and can better provide for and control the availability of such features by providing service using its own switches.
- Third, when AT&T employs its own switches, it can create standardized offerings across the country, which is desirable for efficient marketing, high-quality customer service, and for attracting the largest multi-state users.
- Fourth, use of its own switches and facilities allows AT&T to achieve a greater sharing of common costs, and is the only means for AT&T to achieve economies of scale.
- Fifth, if AT&T does not use its own facilities, then it must heavily rely on another company, and, in the case of UNEs, it must rely on its principal competitor, which is plainly undesirable.

13. Because of the potential cost savings and ability to differentiate its products, AT&T would not ordinarily choose to rely on UNEs. Rather, it would use its own switches and facilities to serve business customers. In particular, much of AT&T's ability to create and control its service offerings depends upon AT&T's ability to use its own network. Notably it is ultimately the switch that provides most of the advanced features and functionality typically demanded by business users. Thus, AT&T has consistently sought to deploy its own switching equipment to serve all segments of the business market whenever it is economically and operationally feasible to do so.

14. Although I am aware that incumbent LECs and others have claimed that the availability of unbundled network elements – and particularly UNE-P – deters facilities-based investments, my experience demonstrates that this claim is simply not true for the business markets that I am responsible for serving – especially business locations that are served by voice-grade loops. Because of business customers’ demands, a carrier’s success in this market depends on its ability to create, control, and efficiently implement its service offerings at the lowest unit cost. Because AT&T indisputably gains greater control of its costs and its service offerings when it uses its own facilities, especially switches, it has been obvious to AT&T for some time that it should pursue switch-based entry for business customers.

15. In fact, AT&T’s actual market experience since 1996 amply demonstrates that AT&T has backed up its preference with significant facilities investments to serve business customers. Critically, AT&T’s investment decisions are based on the underlying economic costs and expected revenues of providing these services. These decisions have never depended upon whether unbundled local switching is available under the Commission’s rules. These real-world business decisions belie the concern that availability of UNEs deters facilities-based competition.

B. Because Voice-grade Loops Are Tied To The ILECs’ Switches, Switch-Based Competing Carriers Cannot Feasibly Acquire Customers

16. Even though AT&T would prefer to use its own facilities – especially switches – to acquire and serve business customers, it continues to face significant obstacles in its efforts to do so. As a consequence, AT&T has been forced to rely on UNEs in the past and must continue to use UNEs to provide competitive local business services for the foreseeable future. But AT&T intends to do so only to the extent necessary to surmount the continuing obstacles to facilities-based competition.

17. In particular, it cannot be seriously doubted that AT&T and all other competing carriers require access to incumbents' operations support systems (OSS). Likewise, as is described in declarations that AT&T has previously submitted to the Commission, it simply is not technically or economically feasible to serve any customers, except in rare instances the locations of the largest business customers, without access to unbundled loops and transport. Declaration of Anthony Fea And William Taggart, AT&T Corp., CC Docket No. 96-98 (Filed April 30, 2001) ("Fea-Taggart Dec."). Accordingly, AT&T has attempted to obtain unbundled loops and transport to serve business customers – although in fact AT&T is often forced to purchase these facilities as special access services, which are priced at significantly above-cost rates.

18. For switching, however, AT&T's has generally sought to use its own switches to serve business customers. Its ability to do so has varied widely, depending on the amount of telecommunications services needed and the sophistication of the customer's CPE at each specific location. Significantly, the intensity of telecommunications usage at a particular business location, rather than the overall size of a business, generally determines the most efficient type of loops to use to serve business customers. A large business with hundreds of employees may have a high aggregate demand for service, but that demand could be scattered across numerous locations, each of which individually requires only a few voice-grade loops. The economics of serving each location must be viewed separately. For example, a successful local restaurant chain might have hundreds of employees in a metropolitan area and might have a high aggregate demand for communications. However, each individual location would typically require only simple customer premises equipment ("CPE") and only a few voice-grade access lines. In that instance, an efficient carrier would serve each location with voice-grade loops, and

not a high capacity loop.² If each of five restaurant locations required four lines, a carrier could not provide service employing a DS1 loop even though the customer, in the aggregate, utilizes 20 voice-grade lines. Accordingly, it is less meaningful to categorize business customers as “large” or “small.” What is significant is the level of demand at any particular business location.

19. Thus, for customers with significant demand for telecommunications services, competing carriers using their own switches can generally compete for customers using a DS1 or higher capacity loop to provide service.³ To obtain such loops, AT&T typically orders an entirely new facility, which is installed, tested and functional *before* the customer’s existing loop is removed and AT&T begins to provide service using the newly installed facility. Using this process generally enables AT&T to use its own switches to serve customer locations that also employ sophisticated CPE that are served by high-capacity loops.

20. Unfortunately, the situation is much different for business customers at locations with less intense telecommunications demand. These customer locations typically are served with voice-grade loops. For these locations, AT&T has not been able to use its own switches to any significant degree, despite substantial efforts over the past several years to make this entry strategy work. This has had a significant impact on AT&T’s ability to serve the business market, because the vast majority of business locations do not require anything more than a few voice-grade loops.

² On the other hand, some businesses have a small number of employees, all of which work at a single location and need continual access to a phone line. In that case, a so-called “small” business might have a fairly significant demand for communications services.

³ This ability to use DS1 and higher capacity UNE loops to profitably serve customers should not be taken to mean that CLECs could reasonably deploy their own high capacity loops. *See* Leshner-Frontera Dec. ¶¶ 18-19; Fea-Taggart Dec.

21. The principal reason for these results is that the ILECs' monopoly control over local loops means such loops are individually "hard-wired" to the ILECs' facilities. As a result they are difficult to access, primarily for two reasons. *First*, the only way to access this type of loop at the ILEC central office for routing to a competitors' switch is through the use of a manual "coordinated hot cut." In the simplest terms, a "hot cut" is the coordinated migration of a customer's loop from one carrier's network to another carrier's network. In general, the procedure involves two main activities: (1) the manual transfer of the customer's physical loop, *i.e.*, disconnecting it from the ILEC switch and reconnecting it to facilities that carry the signal to the CLEC switch; and (2) the coordinated switch software changes on the ILEC and CLEC switches and at the Number Portability Accounts Center ("NPAC"), which handles the porting of telephone numbers. Critically, the hot cut process relies completely on manual efforts, *i.e.*, an ILEC must dispatch technicians to one of its various central offices, where they cut over loops one at a time. Such hot cuts require close coordination between NPAC, the ILEC, and the competing carrier, and require the parties to perform coordinated operations at a specific time and in a specific order. Accordingly, it is essential that the parties involved in a hot cut have a clear agreement on their respective responsibilities and that each party rigorously lives up to its own responsibilities. Unfortunately, as described below, AT&T's experience with the hot cut process has demonstrated that this is not a commercially acceptable or reliable method to migrate customers to AT&T's switches and that the manual nature of the process inherently limits the number of loops that can be moved to AT&T's switches.

22. *Second*, CLECs have difficulty accessing customers' voice-grade loops because incumbents are increasingly using digital loop carrier ("DLC") to increase the efficiency of their loop plant. A DLC is typically used in rural and suburban locations, where the distance from

customers' premises to the central office is greater than in urban settings. Under a typical DLC configuration, the ILEC establishes a remote terminal closer to its customers' premises. Each customer's copper loop is terminated – by a “hard-wired” connection that literally ties it to the ILEC facility – to the DLC. There are a number of different types of DLC equipment, but each is used to collect the traffic from all of the customers' loops terminating at the DLC, and then to digitize and multiplex it onto a single feeder facility that carries the traffic to the central office, where it is routed directly into the ILEC's switch. Although older DLC used copper feeder facilities, the ILECs now almost exclusively deploy fiber feeder with their DLC. The DLC configuration is an efficient use of technology that reduces the ILEC's transport costs (because fewer facilities are needed to transport traffic to the central office), lowers the ILEC's maintenance costs (because fiber is cheaper to maintain than copper), and increases the ILEC's overall loop capacity (because electronics applied to fiber facilities can increase capacity without the need to build additional facilities). As I describe in detail below, although the use of DLC lowers the ILECs' costs and increases their efficiency, it also makes it even more difficult for competitors to access ILEC loops. Currently, over a quarter of all RBOC loops are served via a DLC – and that figure is increasing at a rapid rate – which means that CLECs are effectively barred from offering service to these customers. The Hot cut and DLC problems, especially in combination, demonstrate that competing carriers do not have a feasible way to access and cut over voice-grade loops to their own switches.

23. AT&T's market entry efforts clearly demonstrate the difficulties experienced by switch-based competitors that have attempted to provide service to business customers served by voice-grade loops. As reported to the Commission, AT&T has put into service about 5.8 million “voice-grade equivalents” (VGEs) in local markets nationwide. Of those, 3.1 million VGEs are

provided to business customers, and about 80 percent of those are provided using DS1 or higher capacity loops. Of the remainder, only about 200,000 of AT&T's total VGEs – a paltry 3 percent of the total VGEs and about 6 percent of business VGEs – are provided over voice-grade loops connected to AT&T's own switches. As I detail in the next two parts, AT&T's actual market experience shows that this result is not due to any lack of commitment by AT&T to use its own switches. Rather, it is because there is no feasible and economic way to transition such loops to AT&T's switches.

C. Business Customers With High Volume Demand

24. Customers with substantial telecommunications needs at a single location are typically served with DS1 or higher capacity loop facilities. This small subset of the nation's business customers also typically purchases sophisticated CPE, which is necessary to route traffic onto digital facilities. From the outset, AT&T believed that switch-based entry would be economically feasible for these customers, and that is the path AT&T has pursued. Nevertheless, nearly all of these customers must still be served through combinations of ILEC and AT&T-owned network elements, because of the substantial barriers that prevent AT&T from constructing its own high capacity loop and broadly deploying transport facilities.⁴

25. To implement its entry plan for high-volume business customer locations, AT&T made a substantial number of investments. First, and most notably, it spent about \$11 billion to acquire TCG, which was a facilities-based CLEC that used its own switches to provide competing local services to business customers in a number of markets. In addition to its purchase of TCG, AT&T has made over \$4.5 billion in non-cable capital investments since 1999. As described in the declaration of Messrs. Leshner and Frontera ("Leshner-Frontera Dec."),

⁴ These difficulties are fully described in the Fea-Taggart declaration.

because of its acquisition of TCG and its overall investment in local facilities, AT&T now has deployed about 115 class 5 local switches, over 17,000 fiber route miles (consisting of millions of miles of fiber strands), and has established collocations in over 1000 ILEC end offices. Leshner-Frontera Dec. ¶ 9. By any measure, this shows AT&T's serious commitment to pursue facilities-based entry whenever economically and logistically practical.

26. These investments, along with targeted upgrades to its Class 4 switches, have allowed AT&T to provide local services to large business customers in a number of markets. In particular, through one of AT&T's primary service offerings using these facilities (which are referred to as AT&T's "Prime" products), AT&T is serving about 1.2 million voice-grade equivalents. All of these customers are being served with AT&T's own switches and without using ILEC unbundled switching. Nevertheless, as the Leshner-Frontera declaration describes, describes, AT&T's facilities are dramatically underutilized. Leshner-Frontera Dec. Part IV.A. Accordingly, although AT&T has deployed significant facilities, they are not a valid indicator of AT&T's ability to compete broadly for all types of customers.

27. Second, in addition to deploying local switches to serve large business customers, AT&T developed an innovative new service, known as AT&T Digital Link ("ADL"), to provide local services to certain large business customers. To implement ADL, AT&T invested substantial sums to re-engineer over 200 of its "Class 4" switches, which were initially designed to provide only long distance services. AT&T's investments allowed it to modify these switches so that they gradually could be used to provide a limited form of local services.⁵ ADL provided

⁵ Substantial investment and innovation over time has allowed AT&T to add many more local service features to ADL service, but for most customers it still remains an adjunct to other local services.

AT&T a way to respond to the demands of large business customers for combined local and long distance services by leveraging existing switches. All told, ADL serves about 1.4 million VGEs.

28. The economics of the ADL offering, however, limit its availability strictly to the largest customer locations that employ a PBX. Unlike services offered over “regular” Class 5 local switches, Class 4 switches cannot be accessed unless customers purchase such sophisticated CPE. In addition, ADL is only intended for business customers that have sufficient volume to justify establishing a DS1 (or higher) link between the customer’s premises and AT&T’s Class 4 switch. As a consequence, AT&T’s ADL service is provided exclusively in the large business segment of the market.

29. As these data show, AT&T’s experience in serving high-volume business customers is flatly inconsistent with the ILECs’ claims that the availability of UNEs discourages investment in facilities. AT&T *never* attempted to serve these customers primarily with UNEs, but strove from the outset to develop facilities-based service, and in particular sought to use its own switches to serve these customers. AT&T’s market experience with this group of customers is that providing service using its own switches is both strongly preferable and generally feasible.⁶ Indeed, AT&T has never attempted, and is not seeking, to serve large business locations using incumbents’ unbundled local switching. This experience alone disproves the notion that the availability of UNEs deters new entrants from committing to facilities-based investment to serve the business market.

⁶ Of course, because AT&T cannot deploy its own loops and transport facilities except in rare cases (*see* Fea-Taggart Dec.), AT&T still requires access to those incumbent facilities to serve these customers with its own switches. AT&T is plainly entitled to order these loop and transport facilities as UNEs at cost-based rates, and it has attempted to do so. However, the ILECs often have been unwilling to provide these facilities as UNEs, and, as a result, AT&T typically must order the loop and transport facilities as access services, which are priced above-cost, and which therefore increase AT&T’s costs of service significantly above the ILECs’ costs.

D. Business Locations With Low Volume Demand

30. Unlike businesses with high-volume demand, business locations that require less significant telecommunications services typically use simple CPE and obtain access using voice-grade loop facilities. In fact, given their needs, these types of business customers are more like residential customers. The number of business locations that fit this profile is quite high. The vast majority of business locations require fewer than 20 access lines.⁷ That is not only AT&T's experience in the marketplace, but also the view of other carriers and of telecommunications analysts. For example, The Yankee Group released a survey last year that found that only very large businesses generally require DS1 level loops. The survey found that over 95 percent of businesses with fewer than 20 employees, about 85 percent of businesses with 20 to 99 employees, and about half of businesses employing 100 to 500 people required 20 or fewer lines. *See Yankee Group, Small and Medium Business Communications, Communications Services Survey 2001*, May 2001. *See AT&T Ex Parte*, CC Docket 96-98 (Oct. 11, 200) (describing AT&T analysis showing that the economic breakpoint for using a DS1 loop is about 18 to 20 lines). As these figures demonstrate, there is a very substantial number of business locations that have limited communications needs, and that do not require (and cannot justify) the use of sophisticated CPE and DS1 or higher capacity loops. Indeed, a full one-fifth of the businesses surveyed by the Yankee Group required fewer than five lines. (*Id.*)

31. Even for these low volume business locations, AT&T's initial preference was still to use its own switches to provide competing local service. For these customers as well, AT&T expected that use of its own switches would allow AT&T to create, control and efficiently

⁷ However, locations with fewer than 10 lines account for less than half of all business access lines.

deliver service at the lowest cost.⁸ Accordingly, AT&T initially began implementing a strategy to serve these locations via its own switches and unbundled voice-grade loops. Unfortunately, as I describe below, AT&T's hard-learned experience is that technical and economic impediments, and resulting customer dissatisfaction, make it virtually impossible to use this method as the central component of a market entry strategy for these customers. This experience makes clear that AT&T and other CLECs must rely upon UNE-P, and, consequently, the incumbents' unbundled switching functionality to serve this segment of the business market, at least until a more efficient, effective and inexpensive means (other than the traditional hot cut process) is implemented to enable CLECs to connect those customers to CLEC-owned switches.

1. AT&T's UNE-L Entry Failed Because There Is No Feasible Process To Access Unbundled Copper Loops And Move Them To AT&T's Switches.

32. In past filings with the Commission,⁹ AT&T has described how it initially attempted to enter business markets for low volume locations by purchasing its own switches, and then using voice-grade unbundled loops, collocation and transport purchased from incumbents to carry customers' calls to the AT&T switch – a strategy that AT&T referred to as “UNE-L.” This decision reflected AT&T's desire to use its own switches to provide service, so that it could offer an array of features to business customers over a common nationwide platform.

⁸ Further, by provisioning these customers on its own network, AT&T is well situated to offer high-speed services that take advantage of AT&T's ATM and IP networks.

⁹ E.g., Affidavit of Edward Mulligan on Behalf of AT&T Corp., ¶¶ 9, 12-15 submitted on Oct. 15, 1999, in *Application of New York Tel. Co. for Provision of In-Region, InterLATA Services In New York*, CC Docket 99-295; Declaration of Clifford S. Holtz on Behalf of AT&T Corp., ¶ 14, in *Application of SBC Communications Inc., To Provide In-Region, InterLATA Services in Texas*, CC Docket 00-4.

33. Initially, AT&T believed that it could viably serve low volume business customer locations using a UNE-L strategy. The fundamental factors inherent in such an entry plan are (i) the enormous fixed cost commitments (including the purchase and deployment of local switching equipment and collocations) that must be made before any revenues are generated from a service offering, and (ii) the monthly operational costs of providing service to subscribers that AT&T obtains after making such investments. In order to compete and survive using a UNE-L strategy, AT&T (and any CLEC) must achieve two critical objectives: (1) it must bring its incremental costs down below the incremental revenues that are available in a fiercely competitive market; and (2) it must quickly ramp up commercial sales volumes to allow it to efficiently utilize its fixed investments. As a result, when AT&T deploys a switch, it must be able to add customers quickly so that the switch operates at an efficient level that does not preclude profitability of the offer.

34. The difficulty in implementing the UNE-L strategy is that the loops serving low volume business customer locations are generally “hard-wired” to the ILECs’ switches. To move such customers to AT&T’s switches rapidly, there must be a process in place that quickly, cheaply and accurately severs the tie between the ILEC switch and the loop, and “re-connects” the loop to the AT&T switch. However, no such process currently exists, which means that AT&T cannot serve these customers using its own switches.

35. AT&T’s market results amply demonstrate this problem. From about 1998 through portions of 2001, AT&T attempted substantial UNE-L entry in several key markets for low volume business locations served via voice-grade loops. AT&T focused its entry efforts in areas (a) where there was hope of obtaining unbundled loops at cost-based rates and (b) where it

expected there would be a commercially reasonable process to provision both the unbundled loops and the collocation space that are essential to implement the UNE-L strategy.

36. In these markets, AT&T not only made the necessary up-front investments to implement its UNE-L strategy, it also devoted substantial resources to efforts to achieve the coordination necessary to implement the appropriate provisioning processes. As an initial matter, AT&T invested in collocation and switches to support business UNE-L entry. In addition, it designed its own OSS for businesses in a different manner from its OSS for residential customers. Notably, AT&T's business OSS were initially designed only to send UNE-L orders, *not* UNE-P orders. In addition to these equipment investments, AT&T devoted substantial resources to open provisioning centers staffed with personnel trained in all of the steps needed to successfully migrate customers' loops to AT&T's switches. For example, to implement the UNE-L strategy, AT&T opened two provisioning centers that were initially staffed and dedicated exclusively to implementing AT&T's UNE-L strategy.

37. Unfortunately, even in states like New York and Texas, where there was effort made to improve the collocation and provisioning process, and in spite of AT&T's strong commitment to this plan and its expenditure of significant resources, AT&T's local business entry using a UNE-L strategy foundered because of the inadequacy of hot cuts, even for the relatively small volumes of customers experiencing the process.

38. AT&T attempted UNE-L entry for over three years, from around 1998 through parts of 2001. The results of this strategy were dismal, and growth was very slow. In all that time, AT&T provisioned only about 200,000 lines nationwide – comprising just 3 percent of its overall local services lines and 6 percent of its total business local lines.

39. As I describe in detail in Part IV, these results were caused principally by AT&T's inability to access and migrate voice-grade loops to its own switches, *i.e.*, problems with coordinated hot cuts and in accessing loops served by DLC. These problems resulted in significant provisioning delays and outages associated with these orders, which, in turn, caused widespread dissatisfaction among AT&T's UNE-L customers. Thus, on a nationwide basis, customer conversions took an average of 45 days – a month and a half – from the point of sale to the establishment of customer dial tone with AT&T facilities. Further, the likelihood of a dial tone affecting outage during a cutover was between 6 and 9 percent.

40. These dismal results of the UNE-L strategy came despite AT&T's significant sales and marketing efforts. Indeed, because of these problems, AT&T had to market its services even more vigorously to win customers: naturally, when AT&T's customers suffered from provisioning delays and/or service outages, they often became dissatisfied, and cancelled their service. One of the most revealing figures demonstrating the failure of AT&T's UNE-L strategy was that ***over half*** of orders were cancelled prior to conversion. Because of the high cancellation or "breakage" rate, AT&T effectively had to sell twice the number of lines that it ultimately served through UNE-L.

41. Not surprisingly, an examination of the reasons behind the disappointing number of UNE-L lines provisioned and the high rate of disconnects, including specific feedback from customers, showed that customer dissatisfaction was primarily due to provisioning delays and service disruptions at the time of conversion – which occurred even though only limited volumes had been ordered prior to market ramp-up.¹⁰ Unfortunately, the negative impression left on

¹⁰ In particular, many customers expressed dissatisfaction that their service had to be cut over via the hot cut process *only* during business hours. The disruptive effect of this process severely impacts the customers' business operations, and, to make matters worse, customers had no

customers who experienced such difficulties, including service outages -- which our service agents were forced to admit were possible -- was almost impossible to overcome.¹¹ This negative impression was further affected by customers' expectation that switching local carriers should be essentially the same as switching long distance carriers -- prompt, technically flawless and undetectable. Customers learned by experience or word-of-mouth that changing over to another carrier's switch was neither prompt, flawless, nor undetectable. Further, the UNE-L provisioning process often required multiple calls to the customer to reschedule events. Each additional contact gave the customer less confidence in AT&T's service and provided an opportunity for the customer to change its mind. And, at the same time, each contact served to increase AT&T's expenses. And, perhaps most important, AT&T found that its customers typically held AT&T, and not the ILEC, accountable for all service provisioning problems, regardless of the actual cause. The damaging effect on AT&T's reputation proved to be more ever significant because AT&T found that, in response to problems relating to local service provisioning, many business customers would also take their long distance business to other providers.

42. AT&T's analysis of this information, along with its familiarity with the business market and customer expectations, led to a hard-learned conclusion: service provisioned initially via UNE-L, when a hot cut was involved, was simply insufficient to meet customers' business needs. Accordingly, AT&T found that serving low volume business customer locations using a

control over the timing of any cutover. For example, restaurants and food service establishments were plainly upset if service cutovers were scheduled anywhere near lunch time.

¹¹ Significantly, some outages were extremely prolonged, lasting several *days*. While this was not the normal length, the impact on the customer of an outage of such length was plainly severe. And these prolonged outages helped to create the impression that switching local carriers was simply not worth it.

UNE-L strategy was not feasible, and around the beginning of 2001 it began to concentrate its efforts to provide service to those customers using UNE-P.

2. To Date, AT&T's Revised Entry Strategy Using UNE-P As An Initial Entry Vehicle Has Been Much More Successful

43. After AT&T's experience with UNE-L failed, AT&T altered its entry plan for low volume business customer locations and began to use UNE-P as its initial market entry vehicle. This effort included, among other things, making significant investments in retooling AT&T's business OSS so that it could accept and process orders for UNE-P and re-training customer service representatives to use these new OSS. However, despite the need to implement this strategy, AT&T remains committed to serving these business customers using its own facilities whenever it is economically and practically feasible to do so.

44. The critical difference between this strategy and AT&T's failed UNE-L efforts is that UNE-P permits AT&T to win and serve customers immediately, using an automated, electronic process. This allows AT&T to obtain customers (and their associated revenues) as quickly as it can win them in the marketplace. Moreover, at least for customers not served by DLC loops, AT&T can also use UNE-P as a transitional provisioning mechanism until those customers can be migrated to AT&T's own switches using a process that substantially reduces the persistent problems with line-by-line hot cuts.¹²

45. In particular, the cutovers that are performed under this two-step entry strategy can be accomplished in a manner that is far less disruptive to the customer – a significant issue for business customers. Unlike coordinated hot cuts, a competing carrier can rely on bulk cutovers performed on a “project managed” basis to migrate customers initially served via UNE-

¹² The DLC architecture makes it effectively impossible to convert UNE-P customers served by DLC loops to UNE-L. Thus, UNE-P is required for DLC customers at least until some technical solution is developed that allows loops to be provisioned electronically. *See Gerszberg Dec.*

P to the carrier's own switch. When a project managed process is used, AT&T waits until a significant volume of UNE-P access lines has been established at a particular incumbent LEC central office. It can then place a large order calling for all of the loops that AT&T serves in that office – often as many as 200 or 300 at a time – to be cut over at once.

46. There are numerous advantages to a project managed approach. First, it allows the ILEC to dedicate technicians to the single central office where cutovers will be performed in bulk. Those technicians will be able to focus exclusively on the CLECs' customers' loops, and to avoid distractions occasioned by the need to perform individual coordinated hot cuts for other carriers at the same time. In addition, a project managed approach can be implemented outside of normal operating hours, which is by far the preference of business customers. This approach also permits all parties (the CLEC, the ILEC, NPAC and customers) to prepare for the changes in advance and under a specific schedule. This makes it easier to achieve the coordination that is necessary to perform the physical cutover work. Further, any errors associated with project managed cutovers are generally detected while the technicians are still at the central office and can be addressed at that time. Notably, when the ILEC performs such manual work for its own customers – for example, when a PBX customer switches to a Centrex service, the physical cutovers are similarly performed in bulk and on a project managed basis.

47. AT&T believes that use of this two-step strategy will ultimately enable it to win customers faster, and at the same time gradually migrate those customers to its own switches where that is economically and technically feasible. As a consequence, those switches will be utilized in a far more efficient manner.

48. To date, AT&T has attempted to use the UNE-P entry strategy to serve low volume business locations in a number of key markets. The results of AT&T's revised entry

strategy have been dramatic. In just a few months, AT&T was able to provision about 164,000 lines – nearly as many lines as AT&T’s UNE-L strategy was previously able to achieve in over two years of effort. As a result, AT&T is now offering a competitive bundle of local and long distance services in about 20 markets.

49. AT&T’s relative success in implementing this strategy was based in large part on the improved provisioning and reliability it was able to achieve. Because UNE-P does not rely on manual processes for transfer of the customer from the ILEC to AT&T, the average interval from the point of sale to establishment of customer dialtone fell by over half, from 45 days to just 21 days. Moreover, the likelihood of a service interruption fell dramatically, to between 1 and 3 percent. These improvements had a visible impact on AT&T’s sales and marketing efforts: only 20 percent of the UNE-P orders that AT&T sold were cancelled prior to conversion.

50. Moreover, AT&T has already converted 24,000 of these UNE-P lines to its own facilities using the project-managed approach. On those conversions, a loss of dial tone has occurred less than 1 percent of the time. Clearly, AT&T’s new strategy is having a dramatic effect on its ability to serve low volume business customer locations and to provide this segment of business users with a meaningful competitive alternative.

51. Given its initial success, AT&T fully intends to continue to pursue entry into the small business market in 2002 and beyond. Under current conditions, AT&T believes that by the end of 2002, it will be serving about 425,000 business lines with UNE-P, and over 550,000 lines by the end of 2003. Moreover, AT&T expects to use UNE-P primarily as a transition strategy. In fact, in 2002, AT&T expects that it will cutover 142,000 of its UNE-P business lines to its own switches facilities, and an additional 316,000 UNE-P business lines in 2003.

52. Although AT&T has had some initial success by serving low volume business locations in this manner, there are a number of reasons why this entry strategy has not already been used on a widespread basis and why it may not be expanded further. Most significantly, regulatory obstacles have prevented AT&T from relying on UNE-P in all but a few states. For many years, the status of UNE-P was highly uncertain because it was embroiled in litigation. Moreover, there are only a handful of states that have made it possible to have both reasonable rates for UNEs and workable OSS with which to order UNE-P.

53. Moreover, regulatory restrictions severely limit use of UNE-P to serve business customers in some areas and will cap and ultimately choke off growth in those places. And if the Commission were to eliminate carriers' ability to use UNE-P to serve businesses, then certainly UNE-P could not be relied upon as an entry mechanism to serve these customers. Moreover, such restrictions would seriously curtail facilities-based competition for low volume customers because it would, at best, force AT&T to rely on the hot cut process its customers have rejected.¹³

54. In sum, AT&T's own market experience in serving low volume businesses offers two clear lessons: First, it refutes the incumbent LECs' position that availability of UNEs, especially unbundled local switching, deters new entrants from investing in their own facilities.

¹³ Indeed, AT&T's plans to expand its UNE-P offering to low volume business locations would have to be drastically scaled back or even dropped if the Commission further restricted use of UNE-P to serve business customers. Indeed, even though use of UNE-P improves customer acceptance, it is not the ultimate solution, but only a stopgap measure. In order to use UNE-P as a transition to switch-based UNE-L service, AT&T incurs *two* non-recurring charges -- one for the migration to UNE-P and one for the second cutover to AT&T's switch. In combination, these two charges can foreclose AT&T's ability to serve a customer economically. For these reasons, AT&T's success depends upon obtaining true TELRIC-based pricing for unbundled network elements, including UNE-P. In many cases, however, ILECs have attempted to raise non-recurring charges for hot cuts and UNE rates generally to very high levels. *See also* Huels Dec. ¶¶ 41-42.

The incumbents assume that if UNE-P were broadly available, CLECs would seek to maintain those arrangements indefinitely. But reality disproves the model. AT&T's business plan from the outset was – and remains – to serve these customers with its own switches wherever it is economically feasible to do so. Although market realities have forced AT&T to rely on UNE-P, that is principally because the difficulties in accessing and cutting over voice-grade loops have made UNE-P the only reliable and feasible way to acquire business customers at low volume locations.

55. Second, AT&T's experience proves that new entrants serving the small and medium-sized business market must have access to unbundled switching and to UNE-P to provide a viable method for new entrants to transition these customers to the entrants' own switches. No matter how much switching capacity a new entrant owns, it still needs UNE-P so that it can reliably obtain reasonable volumes of customers before it connects them to those switches.

IV. THE COMMISSION SHOULD UNBUNDLE LOCAL SWITCHING AND ALLOW COMPETING CARRIERS TO USE UNE-P TO PROVIDE SERVICE TO ANY BUSINESS LOCATION SERVED WITH VOICE-GRADE LOOPS

56. Based on AT&T's actual experiences in the marketplace, there is no doubt that its ability to provide local services to all but the largest locations of business customers would be impaired if unbundled local switching were not available. In this Part, I describe in greater detail all of the reasons why competing carriers cannot use their own switches to initially enter the market for low volume business users. As I set forth above, virtually all of the voice-grade loops that serve these customers are hard-wired to the ILECs' facilities, and the processes for accessing those loops and moving them to competing carriers' switches simply cannot support broad-based competition or any sustained competitive market entry.

57. Thus, as AT&T's market experience shows, the coordinated hot cut process that is used to cutover customers to CLEC switches is unworkable because it causes severe provisioning delays and prolonged service outages, which are unacceptable to business customers. And in the case of loops served by DLC, CLECs simply cannot access a particular customer's loop without using processes that relegating their customers to degraded service or that are so expensive as to preclude effective competition.

58. Besides these fundamental problems, the fact that these customers' loops terminate at the ILEC central office causes additional obstacles for carriers attempting to enter using their own switches. Indeed, as one of the very first steps to access these loops, competing carriers must incur the substantial costs and significant time needed to establish collocation at every ILEC central office where they seek to provide service to low volume locations. That is, by itself, a substantial impairment that prevents carriers, including AT&T, from providing ubiquitous service.

59. Finally, apart from all these problems, CLECs are additionally impaired because they must incur significant costs to deploy facilities that can transport traffic from their customers' loops to their switches, often over long distances. These facilities and transport are expensive, and are costs that ILECs never incur since their customers' loops all terminate at the same location where ILECs house their switch. Moreover, the costs for the transport that CLECs need for this purpose is often inflated because CLECs typically must order it as access services, which are priced above-cost, rather than as a UNE, which must be priced at cost.

60. As a result of all these impairments, the switches that AT&T has already deployed are severely underutilized and are not operating at reasonable levels of scale or efficiency.

Accordingly, CLECs will not be able to provide competing local services to all but the largest business customers if they are denied access to unbundled switching and UNE-P.

A. The Key Impairment To Serving Business Customers With CLEC Switches Is The Inability To Access Customers' Loops.

61. CLECs simply cannot build their own loop facilities except in very rare circumstances, and none of those circumstances even arguably exists for a business location with low volume demand for communications services. Leshner-Frontera Dec. ¶¶ 18-19; *see generally* Fea-Taggart Dec. Accordingly, CLECs serving these locations must rely on unbundled access to the voice-grade loops that the ILECs use to serve these customers. But these loops are already hard-wired to the ILECs facilities. In particular, each copper loop that terminates at an incumbent central office is literally tied to a main distribution frame, which is in turn wired directly to the incumbent's switch in the same central office. For loops carried to the central office over a DLC, the loop is tied to the DLC, and then arrives in the central office over a single facility, commingled with traffic from many other loops. CLECs seeking to use their own switches to serve low volume locations of business customers must be able to access all of these loops, and have them moved promptly, efficiently and without error to their own switches.

62. This fundamental aspect of local network architecture explains why competing carriers are impaired without access to unbundled switching and UNE-P. Absent UNE-P, CLECs have no feasible way to access the loops that are hard-wired to the ILECs' facilities. As AT&T learned from its own market experiences, attempting to enter markets via UNE-L is not economically or technically feasible, for at least three fundamental reasons: (i) it requires costly collocation at every ILEC central office; (ii) it effectively prevents CLECs from serving the growing percentage of customers whose loops are connected to DLCs; and (iii) it requires

carriers to rely on coordinated hot to cutover customers' loops to the switches, a process that is costly, results in poor service quality, and cannot support broad-based competition.

1. CLECs Cannot Access Customers' Voice-grade Loops Unless They Establish Collocation, Which Is Costly and Time-Consuming, And Absolutely Precludes A Broad-Based Offer To These Customers.

63. For a CLEC to access the copper loops that serve low volume business locations, , they *must* establish collocation space at the central office serving the loops of each customer they wish to serve. As the Commission has concluded in its previous orders, establishing collocation is a time-intensive, costly process. *UNE-Remand Order* ¶ 263 (“collocation imposes materially greater costs on requesting carriers than the use of the incumbent LEC’s switching”). In particular, the non-recurring charges for establishing collocation in a single central office can be as high as \$500,000. *Id.* None of these basic facts have changed since 1999. Although AT&T has established collocation in over 1,000 central offices nationwide, there are about 14,000 ILEC central offices. *See* Leshner-Frontera Dec. ¶ 33.¹⁴

64. Thus, absent UNE-P, a CLEC simply cannot offer *any* services to a low volume business location unless it first establishes collocation in the ILEC central office serving that location. Given the substantial costs and time delays associated with collocation, this fact creates a huge obstacle to CLECs’ ability to provide competing service to these low-prohibitive customers. And, given the enormous number of ILEC central offices, there is simply no way for CLECs to make its services widely available to low volume business customers, unless they can do so through UNE-P. For these reasons alone, CLECs are impaired in providing switch-based service to low volume business customers served with voice-grade loops.

¹⁴ In recognition of the difficulties associated with establishing collocation, the Commission previously adopted rules that provided ILECs with incentives to provide EELs. *See UNE Remand Order* ¶ 288. However, EELs consist of a high capacity loop and transport, and are not available for voice-grade loops.

2. CLECs Have No Feasible Way To Access Voice-Grade Loops

65. Even if collocation costs were reduced to nothing and could be made ubiquitously available, CLECs would face two additional and substantial barriers to providing service to low volume business locations: the increasing deployment of DLC and the serious deficiencies created by the hot cut process. Again, AT&T's market experience amply demonstrates these problems: even in the areas where AT&T already has established a collocation, its facilities and switches remain tremendously underutilized. *See* Leshner-Frontera Dec. Part IV.A.

i. CLECs Cannot Rely On The Coordinated Hot Cuts Process To Migrate Customers' Voice-grade Loops Because They Cause Poor Service And Cannot Be Performed In Volumes To Support Mass Market Competition.

66. For CLECs to use their own switches to serve low volume business locations that are served via voice-grade loops, they must have an efficient, high quality and cost-effective means to move customers' loops to their own switches. The coordinated process meets none of these standards. Indeed, in its prior review of CLECs' need for access to unbundled local switching, the Commission correctly determined that "the coordinated loop cutover process impairs the ability of a [new entrant] to provide timely service." *UNE-Remand Order* ¶ 271. AT&T's market experience since that time has only reinforced this conclusion, and clearly demonstrates that the "coordinated hot cut" process creates serious impairments to using their own switches and does not support broad-based competition.

67. **Coordinated Hot Cuts Necessarily Lead to Service Problems.** First, as AT&T's actual market experience demonstrates, competing carriers cannot provide switch-based service because coordinated hot cuts simply result in unacceptable customer service. Even where ILECs meet currently established performance standards for hot cuts, the process

continues to result in substantial delays and in prolonged outages for customers, defects that business customers are simply not willing to shoulder.

68. In particular, as it progressed into its UNE-L entry plans, AT&T found that it was essential that it obtain explicit agreements from incumbent LECs on the precise methods and procedures for the manual hot cut process in order to reduce operational barriers to market entry. However, agreements regarding such processes were difficult to reach. For example, a somewhat standardized process for hot cuts was established in New York, but only after carriers dedicated a significant amount of time to the process, and after the New York Public Service Commission engaged in nearly daily monitoring and oversight.¹⁵

69. As a result of the lack of standards and the inherently manual nature of the entire process, the overall performance on coordinated hot cuts is woefully inadequate. As I noted above, AT&T's experience with purely UNE-L entry and coordinated hot cuts is that delays in confirming orders and provisioning service resulted in long intervals that customers found unacceptable – on average, 45 days between AT&T's time of sale and the actual changeover to AT&T's service. Worse yet, the likelihood of a service interruption averaged 6 to 9 percent. These problems were by no means isolated to a few ILECs or a limited number of markets. *See, e.g., AT&T Ex Parte Presentation*, dated March 15, 2001 (reviewing performance from September 2000 to January 2001). Moreover, other carriers have uniformly reported similarly poor experience with ILEC hot cut performance. *E.g., PACE/Birch Ex Parte*, CC Docket 96-98 (Aug. 16, 2001); *Birch Ex Parte*, CC Docket 96-98 (June 19, 2000); *PACE Ex Parte*, CC Docket 96-98 (filed May 1, 2001). And even where the ILECs have met the performance standards

¹⁵ *See* Szczepanski Performance Measures Declaration, ¶ 9.

established by this Commission or a state commission, the process nevertheless causes customers to suffer service-related problems.

70. **Coordinated Hot Cuts Could Never Be Reliably Performed In Volumes Needed To Support A Competitive Market to Serve Low volume Business Locations.** The second significant competitive obstacle created by hot cuts also is intrinsic to the process, and could not be solved even if the ILECs' performance in provisioning hot cuts were perfect. Hot cuts require a high degree of coordination among carriers and a significant amount of manual work, and as a consequence, they could never be performed in the quantities that would be required to sustain a truly competitive local market.

71. Thus, the hot cut process would therefore necessarily gate competitive entry into mass markets like the one for business locations served by voice-grade loops. For these customers, the affected carriers never know far in advance the number of cutovers that will be ordered or the locations where they must be performed. As the Commission has previously noted in a related context, "order volumes and fluctuations" are to be "reasonably expected in a competitive market." *Ameritech Michigan Order* ¶ 199. The hot cut process is fundamentally inconsistent with these volatile market conditions, especially since demand can be subject to sudden spikes due to marketing promotions, press coverage, or numerous other unforeseen factors.

72. For these reasons, the fact that the Commission has determined in section 271 proceedings that a few BOCs have provided "minimally acceptable" levels of hot cut performance in no way reduces – let alone eliminates – the impairment caused by the coordinated hot cut process. Even for the few LECs that meet the "minimum standards" referenced by the Commission, AT&T's market experience demonstrates that such performance

is not adequate for *customers*. It is *their* judgment that holds sway in the marketplace and determines whether a carrier can actually sell its services. Thus, it is customers' decisions that ultimately determine whether a carrier is impaired in its ability to offer a service. Indeed, much of AT&T's dismal results from UNE-L entry occurred in New York and Texas – despite the fact that (i) the ILECs in those states had provisioned more hot cuts than in any other state, (ii) the state commissions were reasonably vigilant about overseeing the LECs' performance and had helped to ensure that some agreed-upon methods and procedures for performing hot cuts were in place, and (iii) the ILECs had been deemed to meet minimum standards of no more than 10 percent delayed hot cuts and no more than 5 percent outage levels.

73. Even more fundamental, though, is that, regardless of the performance level that any ILEC has achieved to date, no ILEC has ever performed hot cuts in the *volumes* that are necessary to support true competitive entry into the small to medium-sized business market. Again, AT&T's market experience demonstrates that in just one year – and under the existing limitations on the availability of UNE-P for business customers – it was able to win over 164,000 customers in only about 20 local markets. This level of commercial entry into all local markets by all CLECs could never be sustained if CLECs were forced to use coordinated hot cuts to convert customers' loops. *See also* PACE Coalition *Ex Parte*, CC Docket 96-98 (filed July 27, 2001) (noting significant growth in UNE-P lines versus UNE-L lines); PACE *Ex Parte*, CC Docket 96-98 (filed May 1, 2001) (“market experience demonstrates conclusively that far greater competitive levels are achieved with access to unbundled local switching than without it”).

ii. The ILECs' Large and Growing Deployment of DLC Significantly Impairs AT&T's Ability to Access Customer Loops

74. In addition to hot cuts, carriers are impaired in offering service to low volume business locations because a large and growing portion these customers' voice-grade loops are

connected to DLC equipment. When this DLC service arrangement is used, CLECs are effectively prevented CLECs from accessing loops they need to offer facilities-based competitive services.

75. Although increased deployment of DLC is generally beneficial, especially to the ILEC, in one absolutely critical respect, it significantly retards competition. Because the DLC permits multiple customers' traffic to be carried to the central office over a single facility and feeds that traffic directly into the ILEC's switch, there is no simple way to segregate (or access) the traffic of a particular customer. As a result, CLECs that must access customer loops to provide their own switch-based service generally cannot do so in a technically feasible or economic manner. As explained in the Declaration of Joseph P. Riolo, AT&T Corp., CC Docket No. 98-147 (Filed Oct. 11, 2001, it is clearly impractical and uneconomic for CLECs to collocate at remote terminals where copper subloops are terminated in the DLC architecture. This leaves only two possibilities for accessing customers served by DLC loops, and as explained in the Declaration of Irwin Gerszberg, both of these alternatives are cost-prohibitive and unworkable on any broad scale.

76. The methods used to serve customers served by DLC are, at best, stopgap measures and in all events cannot support widespread competition, especially given the already significant and rapidly growing deployment of DLC in the ILECs' loop plant. Based on data the ILECs submitted to the Commission, they already serve over 42 million channels via a fiber DLC – about 22 percent of all working channels. FCC ARMIS Data, Year 2000 Data. Thus, CLECs are already significantly impaired in their ability to provide switch-based service to all of these 42 million channels. As described in Part III, the existence of DLC already had a

substantially negative impact on AT&T's switch-based UNE-L entry, even though AT&T's entry was focused in urban areas where DLC deployment is less prevalent.

77. Moreover, the amount of fiber-based DLC is growing at a significant rate. Again based on data the ILECs have supplied to the Commission, from 1991 to 2000, the number of channels served via fiber DLC grew at the astounding *annual* rate of 26 percent. FCC ARMIS Data, Years 1991-2000. Thus, over time, even more customers will be foreclosed from competition because CLECs have no effective way to access the loops of DLC-served customers.

B. As A Result of These Impairments, CLECs Switches Are Underutilized

78. Because of the difficulties in accessing and migrating business customers' loops, CLECs have not gained significantly large market penetration rates and still serve only small numbers of customer locations using voice-grade loops connected to their own switches. As a consequence, CLECs' switches are not utilized efficiently, *see* Lesher-Frontera Dec. ¶¶ 59-60, which, in turn, causes CLECs' switching costs to remain significantly higher than the ILECs' costs. These higher costs effectively prevent a CLEC from using their switches to provide competitive local services, especially to low volume business customers.¹⁶

C. CLECs Also Are Impaired Because Of The Significant Costs To Transport Traffic From Customers' Loops To Their Own Switches

79. Finally, there are additional hurdles to clear even if all of these other problems were solved. The critical problem again relates to the fact that all customers' loops already terminate at the ILECs' central office where ILECs house their switches. CLECs, by contrast,

¹⁶ These impairments explain why, from the CLECs' perspective, without the availability of UNE-P to acquire customers, the assets that a competitor has deployed cannot effectively be used to serve low volume business locations. They also explain why, even with excess CLEC switch capacity, there is currently no alternative market for wholesale switching capacity. There are no such offers precisely because no switching facilities of *any* competing carrier can be easily connected to customers' all-copper loops.

generally cannot deploy circuit switches at the incumbent LECs' central offices, but rather deploy a single switch at a remote location that covers area served by multiple ILEC end office switches. However, under that arrangement, CLECs must also pay to establish facilities that can transport their customers' traffic to their switch.

80. As AT&T has previously detailed, there are substantial costs associated with "backhauling" this traffic from the ILEC central office where customers' loops terminate to the CLEC's remotely deployed switch. In an affidavit submitted by AT&T during the Commission's last unbundling review, AT&T estimated, using conservative estimates, that the costs associated with backhaul were about \$100 per line. *See* Affidavit of C. Michael Pfau, CC Docket 96-98, filed May 25, 1999.¹⁷ The principal facts and calculations underlying this figure have not substantially changed since 1999. Notably, other CLECs have also submitted evidence of their costs for the same functionality, and have arrived at a figure even higher than the one AT&T presented. *E.g.*, *Pace/Birch Ex Parte*, Aug. 16, 2001 (Birch's non-recurring provisioning costs are \$144 per loop).

81. Moreover, to the extent that CLECs require transport facilities to move the traffic from a collocation cage to their switches, they should be able to purchase such transport as UNEs at reasonable, cost-based rates. However, the ILECs have often not made transport available as a UNE, and CLECs are often required to purchase these transport facilities as special access services, which are priced well above their costs. This problem only further exacerbates the costs associated with moving traffic to a CLEC's switch.

¹⁷ AT&T estimated a cost \$120 per line for the costs of the backhaul of traffic and the costs of establishing collocation. Removing the collocation costs results in a figure of about \$100 for the equipment needed to transport traffic from the collocation space to the CLEC switch. Pfau Aff. ¶ 26 & n.12.

V. **UNBUNDLED SWITCHING SHOULD BE AVAILABLE UNLESS THE CLEC USES A DS-1 OR HIGHER CAPACITY LOOP TO PROVIDE SERVICE TO A PARTICULAR BUSINESS LOCATION**

82. As the foregoing demonstrates, AT&T is impaired in providing competing local services when they seek to connect their own switches with voice-grade loops. As a consequence, the Commission should allow AT&T and other CLECs to serve business customers using incumbents' unbundled local switching, including UNE-P, unless the CLEC uses a DS-1 (or higher capacity) loop to serve a customer. Such a rule not only tracks the impairment faced by CLECs, it is easier to apply and depends upon the "services that [the CLEC] seeks to offer," which the Act indicates is the proper inquiry. Unlike voice grade loops, DS-1 and higher capacity loops do not require hot cuts.

83. Rather, such loops can simply be multiplexed onto transport facilities and routed to an AT&T switch. Moreover, unlike the current line restriction in the current "carve-out" this creates an easily administrable rule for the availability of unbundled switches.

84. Under the Commission's current rules, competing carriers can be barred from using unbundled local switching or UNE-P to serve business locations with more than three lines in key dense metropolitan areas. If that rule is retained, AT&T simply will have no feasible method for serving a significant portion of business customers. *See, e.g.,* PACE Coalition, *Ex Parte*, CC Docket 96-98 (Apr. 27, 2001) (showing percentage of business market foreclosed by current carve-out); Z-Tel, *Ex Parte*, CC Docket 96-98 (filed Nov. 21, 2001) (elimination of carve-out would increase mass market competition by 60%). In order not to foreclose competition for such customers, any limitation on access to unbundled switching should be based not on a line limit but rather on the type of loop used to serve the location.

85. If, however, the Commission wishes to continue to use a line-based count to limit the availability of unbundled switching, it should adopt a line-based proxy for a DS-1 facility by

examining the point at which an economically rational new entrant would typically choose to serve a business customer at a single location using such a facility rather than a voice-grade loop. As AT&T and other carriers have shown, this “cross-over” generally occurs in the range of 18 to 20 lines. *See Ex Parte Letter* from Robert W. Quinn, Jr., AT&T Corp., CC Docket 96-98 (filed Oct. 11, 2000); *see also* PACE, *Ex Parte*, CC Docket 96-98 (filed Apr. 27, 2001).

86. Further, if a line-based proxy is chosen, the Commission should also precisely explain how that line-based proxy is to be applied in the marketplace. In particular, the incumbent LECs have seized upon a number of ambiguities in the current 3-line limit to place even more unreasonable limitations on CLECs’ use of UNE-P. Most notably, many LECs have insisted that the 3-line restriction applies to all lines that the customer maintains within the MSA, even where the customer has 3 or fewer lines at individual locations. Given the nature of the impairments that I have described above -- all of which relate to the type of loop facility used to serve particular locations -- any limit on the availability of unbundled local switching must apply to the lines that the new entrant seeks to serve *at a particular location*.¹⁸

87. In addition, the Commission should also make clear that any limitation on unbundled switching applies only to lines that a CLEC seeks to serve. In AT&T’s actual market experience, it is frequently the case that a customer may initially decide to switch only a portion of its lines to a competing carrier, and will retain a number of lines with the incumbent LEC. If

¹⁸ The Commission’s guidance is even more critical in light of the decision of certain state commissions to apply a more restrictive interpretation of the carve-out. Order No. PSC-01-1402-FOF-TP, *Petition by AT&T Communications of the Southern States, Inc. d/b/a AT&T for Arbitration of Certain Terms and Conditions of a Proposed Agreement with BellSouth Telecommunications, Inc. Pursuant to 47 U.S.C. Section 252*, Docket No. 00731-TP (Fl. PSC June 28, 2001); Order, *Petition of AT&T Communications of the Southern States, Inc. and Teleport Communications of Atlanta, Inc. for Arbitration of Certain Terms and Conditions of Proposed Agreement with BellSouth Telecommunications, Inc. Under the Telecommunications Act of 1996*, Docket No. 11853-U, at 8 (Ga. PSC Apr. 24, 2001).

the customer is satisfied with its experience with the competing carrier, the customer will then convert additional lines to the competing carrier. For example, a customer with 25 lines at a single location may decide to switch only 5 to AT&T. Regardless of how many lines a customer may have at a single location, AT&T should still be permitted to use unbundled switching and UNE-P for the 5 lines of service that it is providing, because those lines cannot efficiently be served via a DS-1 loop.

A. Reducing The Availability Of Unbundled Switching Would Preclude Competition For Most Business Customers

88. The incumbent LECs not only oppose making unbundled local switching more widely available to serve business customers, they propose rules that would significantly cut back on the availability of unbundled switching – or even eliminate it entirely. All of these attempts are fundamentally misguided, and most importantly, fail to address seriously the impairments related to serving those substantial segments of the business market with less intense usage. Instead, these LECs have proposed rules that rely on market data purporting to show that competing carriers currently have the capability of using their own switching to serve low volume business customers. In fact, however, those data are highly misleading and in no way demonstrate that AT&T can efficiently provide service to business customers whose service is provided over voice-grade loops.

1. Evidence Of Switch Deployment

89. A common factor of the proposals is to limit the availability of unbundled switching in markets where competing carriers have deployed a specified number of switches. *E.g., Ex Parte Letter of Qwest, CC Docket 96-98 (filed Apr. 12, 2001) ; Ex Parte Letter of Verizon, CC Docket 96-98 (filed May 23, 2001); Ex Parte Letter of SBC, CC Docket 96-98 (filed July 23, 2001).*

90. But any rule that limits the availability of unbundled switching and UNE-P based on a simple count of competing carriers' switches in a market is arbitrary and fails to address the critical impairments resulting from the need to connect those switches to voice-grade loops. Most fundamentally, such switch counts do not make any inquiry into how those competing carriers are in fact using their switches. Any serious examination of that issue demonstrates that, to the extent competing carriers are using their own switches, it is typically to provide service to large business customers – in a manner similar to the “Prime” and ADL services that AT&T provides to large business customers with complex CPE that connect to high capacity loops. Any rule based on a simple count of the number of switches competing carriers have deployed thus masks the fact that such switches are not in fact used – and generally cannot be used – to serve locations of business customers with lower communications usage.¹⁹

91. As described above, AT&T has deployed numerous Class 5 switches and has modified many its Class 4 switches to provide local services, but AT&T's Class 5 switches are significantly underutilized and *none* of its Class 4 switches can be used to provide service to businesses served by voice-grade copper loops. Accordingly, a mere switch count ignores the significant and very real impairments AT&T faces in using their own switches to serve business customers with voice-grade loops.

92. Critically, most other CLECs have reported the same experience as AT&T: the switches they have deployed are not being used to serve business locations with limited demand for communications services, but instead are used only for very large businesses using at least a

¹⁹ Most proposals to rely on a switch count would examine the local exchange routing guide (LERG) to attempt to obtain an accurate count of the switches deployed by competing carriers. However, data in the LERG must be properly analyzed, or else it will overstate the number of switches that competing carriers have deployed. For example, the LERG can reflect irrelevant items such as packet switches that are not used to provide voice services.

T1 facility. Birch Telecom, for example, explained to the Commission that it has purchased three switches that it initially intended to use to serve customers that used voice-grade loops. Birch *Ex Partes*, CC Docket 96-98 (filed Aug. 16, 2001; July 19, 2001). However, its experiences with the coordinated hot cut process, which it found to be “plagued with difficulty and delay,” forced it to halt those offerings, and it instead uses its switches only to serve customers using higher capacity loops. *Id.*²⁰ Similarly, Focal Communications uses its own switches to provide service, but it has informed the Commission that it “concentrates exclusively on customers that have a current need for DS1 communications functionality or higher.” *Ex Parte* of Focal Communications Corp., CC Docket 96-98 (filed May 19, 2000). This confirms that a mere switch count ignores because the severe problems CLECs face in attempting to migrate customers served by voice-grade loops, and that preclude CLECs from achieving economies of scale, thus imposing materially higher unit costs than the incumbents.

93. Finally, the fact that *some* CLECs may have deployed a switch in a particular general area does not demonstrate that CLECs *generally* can obtain switching capacity that could substitute for ILEC unbundled local switching. As described above, even if alternative switching were offered by other CLECs (and no such sources have generally appeared to date), no CLEC could rely on another competing carrier’s switch if it could not obtain prompt, reliable and inexpensive access to its prospective customers’ loops.

2. Other Market Data Also Fails To Demonstrate That Competing Carriers Are Using Their Own Switches To Serve Low volume Business Locations.

94. To support their proposed rules to limit the availability of unbundled local switching, ILECs have relied on certain market data that purports to demonstrate that competing

²⁰ Despite these difficulties, Birch – like AT&T – intends to migrate its UNE-P customers over to Birch’s own facilities once an effective method becomes available.

carriers have in fact already made significant inroads in serving allegedly low volume business locations. However, that data is highly misleading. For example, a BellSouth *ex parte* filing claimed to have analyzed “competitive disconnects” in BellSouth-selected wire centers, and asserted that its analysis shows that CLECs are actively competing for small business using their own facilities. BellSouth *Ex Partes*, CC Docket 96-98, (filed Nov. 30, 2000 & Dec. 22, 2000). Other parties, however, have already fully explained that the BellSouth “analysis” suffers from a host of significant methodological flaws that render its conclusions meaningless. *See, e.g.* PACE Coalition *Ex Parte*, CC Docket 96-98 (filed Jan. 8, 2001). The most significant flaws are that (i) BellSouth’s measure of “competitive disconnects” grossly overstates the true number of customers actually lost to competing carriers; (ii) BellSouth’s analysis included customers that in cannot be deemed “small” businesses, and (iii) BellSouth’s methodology failed to convincingly link its inflated number of disconnects to competing carriers that are in fact using their own facilities, as opposed to other entry methods. *Id.*²¹

95. Moreover, the ILECs’ conclusions are directly contradicted by actual marketplace experience. For example, in BellSouth’s region, the Commission’s own ARMIS data demonstrate that, since the passage of the Act in 1996, growth in the BellSouth’s business lines has decreased most significantly for *digital* lines, *not* for voice-grade lines. FCC ARMIS Data. This strongly suggests that if competition has affected BellSouth’s business customers, it is only for high volume business locations, not for locations served by voice-grade loops. The ILECs’ claims are also squarely contradicted AT&T’s own market experience, which shows that the most measurable progress that AT&T has made in serving “small” business locations is with its

²¹ Similar studies by other ILECs are flawed for many of the same reasons. *See, e.g.*, MCI/WorldCom *Ex Parte*, Jan. 9, 2001 (refuting claims by Verizon that it has lost small business customers; among other things, Verizon’s methodology failed to consider businesses served with voice-grade loops separately from those served with digital facilities).

UNE-P offer. Only about 6 percent of the VGEs for business customers AT&T serves are served by voice-grade loops. The remaining 94 percent are served either by DS-1 or higher capacity loops or via AT&T's UNE-P service.

B. An Electronic Loop Provisioning Process Is Needed To Address The Key Impairment CLECs Face In Connecting Customers To Their Own Switches

96. The ILECs' proposals to eliminate or severely restrict unbundled switching are misguided, because they each fail to address the critical impairment that competing carriers face when they seek to use their own switches to serve voice-grade loops: there is no inexpensive and reliable process for carriers to access those loops and migrate them to their own facilities – and essentially no way at all to migrate customers served by DLC. Thus, before the Commission can reasonably consider eliminating the ILECs' obligation to unbundle local switching, the ILECs must be able to implement an effective process to move customers' voice grade loops to competing carriers' switches.

97. As described in the attached declaration of Irwin Gerszberg, there is a technical solution that could be implemented that would allow customers to change their local carriers in a fast and reliable manner. If implemented, this process would allow CLECs to access all types of voice-grade loops – including those now served by DLC – and would eliminate the need for coordinated hot cuts and any other manual provisioning to fulfill a customer's request to change local carriers.

98. Absent implementation some comparable method that allows CLECs to access and migrate any voice-grade loop to its own switches, promptly, accurately and inexpensively, CLECs will continue to be impaired in providing switch-based service to business locations with relatively low communications usage, and will require access to UNE-P to serve these customers.